

**VIRGINIA
STANDARDS OF LEARNING ASSESSMENTS**

Spring 2002 Released Test

**GRADE 5
MATHEMATICS**

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DIRECTIONS

Read and solve each question. Then mark the space in the answer booklet for the best answer.

SAMPLE

Jenny found 17 seashells at the beach. What is 17 rounded to the nearest ten?

- A 10
- B 15
- C 20
- D 25

1 The difference of $21,234 - 19,078$ is best described as —

- A a little more than 1,000
- B a little more than 1,500
- C a little more than 2,000
- D a little more than 2,500

2 $56 \overline{)1,234} =$

- F 22 R2
- G 34 R9
- H 38 R6
- J 42 R2

3 Lark bought the two shirts shown below.



If the prices shown include tax, what was the total cost of the two shirts?

- A \$39.26
- B \$39.36
- C \$40.26
- D \$40.36

4 Last week Drew worked 7.9 hours. This week he worked 8.6 hours. How many more hours did he work this week than last week?

- F 1.7
- G 1.3
- H 0.7
- J 0.3

5
$$\begin{array}{r} 82 \\ \times 69 \\ \hline \end{array}$$

- A 5,558
- B 5,658
- C 6,238
- D 12,030

6
$$\begin{array}{r} 6\frac{11}{12} \\ - \quad \frac{5}{6} \\ \hline \end{array}$$

F $6\frac{1}{12}$

G $6\frac{3}{4}$

H $5\frac{1}{4}$

J $5\frac{2}{5}$

7 $3.642 \div 6 =$

- A 0.607
- B 6.07
- C 60.7
- D 607

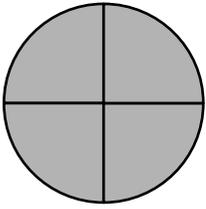
8 $381 + 245 + 579 = ?$

- F 1,105
- G 1,195
- H 1,205
- J 1,295

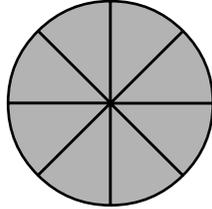
9 **The Smiths are planning to drive the 1,038 miles from their home to the Grand Canyon. They plan to drive 689 miles the first day. How many miles will they have left to drive to reach the Grand Canyon?**

- A 349
- B 368
- C 451
- D 527

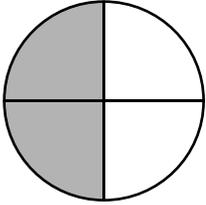
10 This is 1.



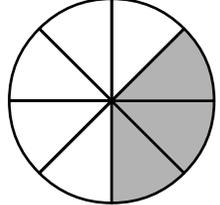
This is also 1.



What is



+



?

F $\frac{1}{4}$

G $\frac{2}{5}$

H $\frac{2}{3}$

J $\frac{7}{8}$

11 The total cost for Patsy to attend 9 days of arts and crafts camp was \$306. The cost for each day of camp is the same.



What was the cost for each day of arts and crafts camp?

- A \$27
- B \$31
- C \$34
- D \$42

- 12 The table below shows the number of tickets sold to different events at the county fair.

Event Tickets Sold

Event	Number Sold
Dog Show	2,260
Craft Booth	3,031
Whirly Ride	928
Ferris Wheel	1,415

What was the total number of tickets sold for these four events?

- F 7,634
G 7,624
H 6,634
J 6,524
- 13 For her report on dinosaurs, Rita rounded the weight of one kind of dinosaur to the nearest thousand. If the weight to the nearest thousand pounds was 8,000 pounds, which of the following could have been the weight before rounding?
- A 7,489 pounds
B 8,293 pounds
C 8,609 pounds
D 9,512 pounds

- 14 Which is read “fifty-five and twenty-one thousandths”?

- F 5,521,000
G 55,210
H 55.21
J 55.021

- 15 Which digit goes in the space to make the statement below true?

$$4,837,206 > 4,8_5,379$$

- A 2
B 4
C 6
D 9

16 Which of the following has a value greater than $\frac{5}{6}$?

F $\frac{5}{9}$

G $\frac{2}{3}$

H $\frac{11}{12}$

J $\frac{10}{12}$

17 What digit goes in the space to make the number sentence below true?

$$1.6238 < 1._017$$

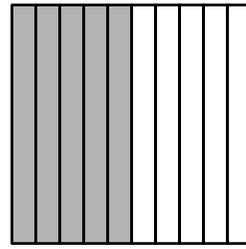
A 4

B 5

C 6

D 7

18 The figure below is shaded to represent a decimal.



How many of the hearts below must be shaded to represent the fraction with the same value as the decimal represented above?



F 1

G 2

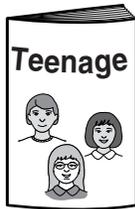
H 3

J 4

19 The picture below shows a copy of four different magazines. The number under each magazine is the total number of copies that magazine sold last year.



3,243,810



2,567,613



1,435,267

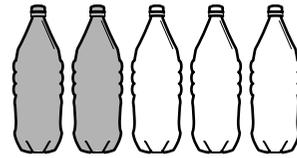


4,261,023

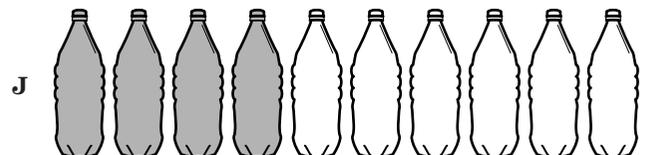
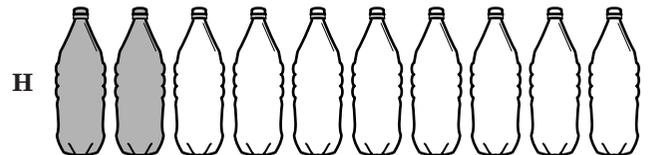
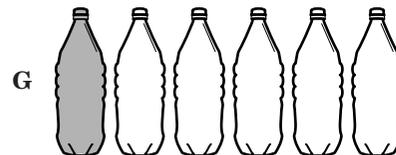
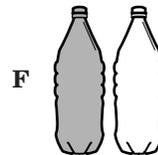
Which magazine sold a number of copies that has a 4 in the ten-thousands place?

- A All Sports
- B Teenage
- C Music Time
- D Young People

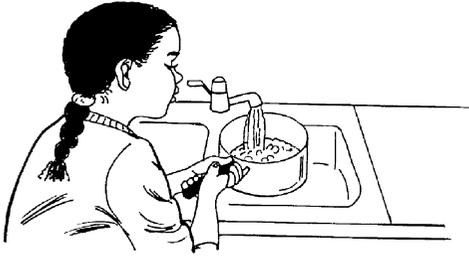
20 A fraction of the group of bottles below is shaded.



Which of the following groups is shaded to show a fraction with the same value?



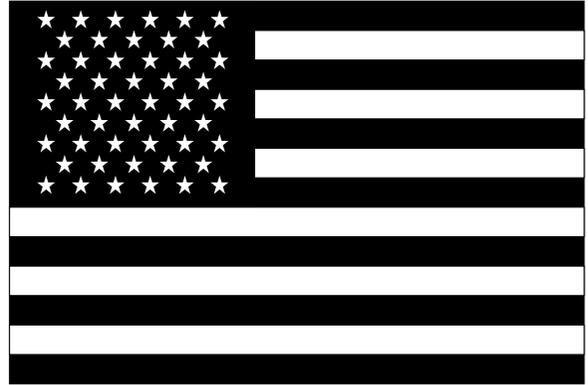
- 21 Caroline put 1 inch of water in the bottom of a pot. Which is *closest to* 1 inch?



- A 2.5 centimeters
- B 25 centimeters
- C 2.5 meters
- D 25 meters

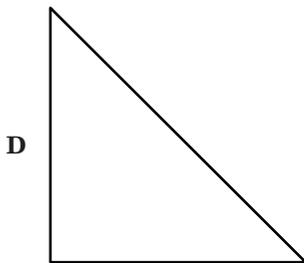
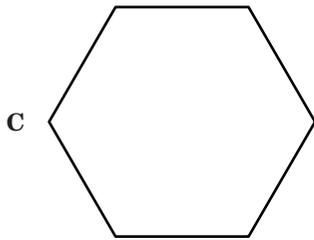
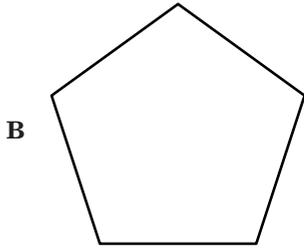
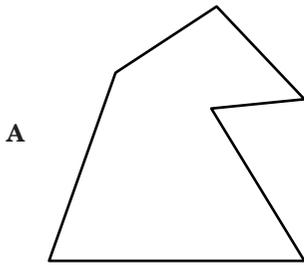
- 22 Use your inch ruler to help you answer this question.

What is the perimeter of the picture of the United States flag shown below?

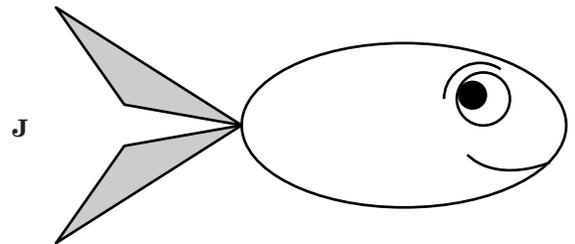
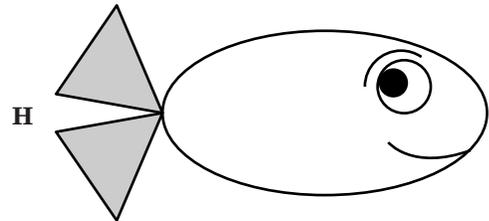
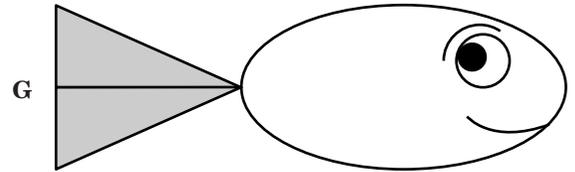
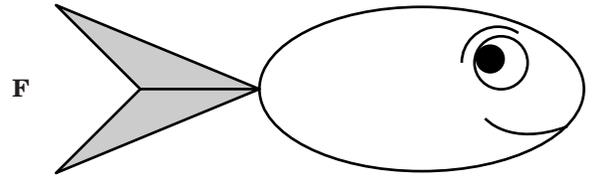


- F 5 inches
- G 6 inches
- H 8 inches
- J 10 inches

23 Which of the following has at least two sides that appear to be parallel?



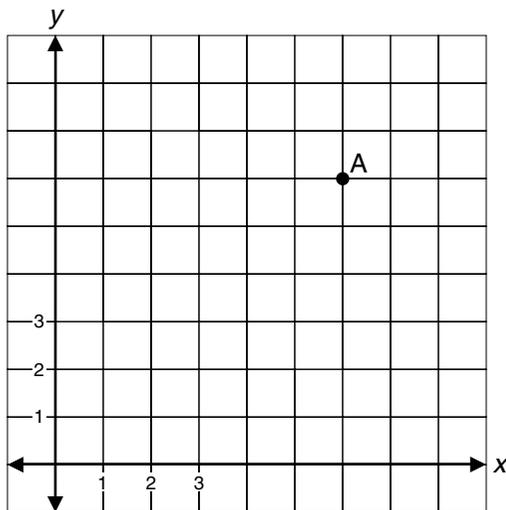
24 Lynn drew a fish using two right triangles for its tail. Which could be the fish Lynn drew?



25 Which of the following describes a figure that has an area of 28 square centimeters?

- A A rectangle with length of 9 centimeters and width of 5 centimeters
- B A rectangle with length of 7 centimeters and width of 4 centimeters
- C A square with length of 7 centimeters and width of 7 centimeters
- D A triangle that has 2 sides 10 centimeters long and 1 side 8 centimeters long.

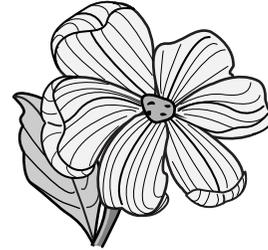
26



What are the coordinates of Point A?

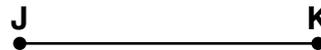
- F (7, 7)
- G (6, 6)
- H (6, 5)
- J (5, 6)

27 Which unit would *most often* be used to determine the mass of one dogwood flower?



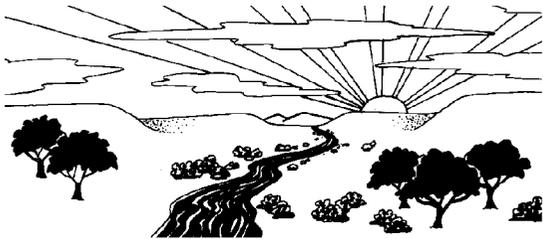
- A Gram
- B Kilogram
- C Meter
- D Liter

28 Which best describes this figure?



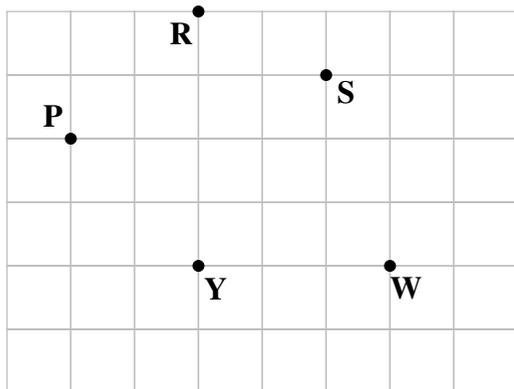
- F Angle JK
- G Line segment JK
- H Ray JK
- J Line JK

- 29 On Tuesday, Janine read in the newspaper that sunrise would be at 6:43 A.M. and sunset would be at 9:37 P.M. What length of time is the sun expected to be out?



- A 4 hr 6 min.
 B 14 hr 54 min.
 C 15 hr 54 min.
 D 15 hr 6 min.
- 30 Use your ruler as a straightedge to help you answer this question.

On the grid below, connect point P to point Y, then connect point Y to point W. What kind of angle has been formed?

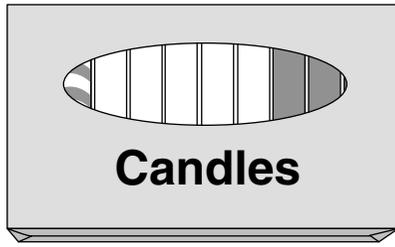


- F Obtuse
 G Acute
 H Right
 J Straight

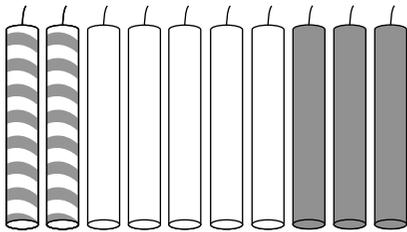
- 31 Which is a true statement?
- A The length of the radius of a circle is one-fourth the length of the diameter.
 B The length of the radius of a circle is the same as the length of the diameter.
 C The length of the radius of a circle is one-half the length of the diameter.
 D The length of the radius of a circle is two times the length of the diameter.

- 32 A recipe calls for 25 grams of sugar. This amount is closest to —
- F 1 pound
 G 1 ounce
 H 10 pounds
 J 10 ounces

33 Mitch bought a box of candles.



These are the candles that are in the box.



If Mitch takes out 1 candle without looking, what is the probability that it will be striped?

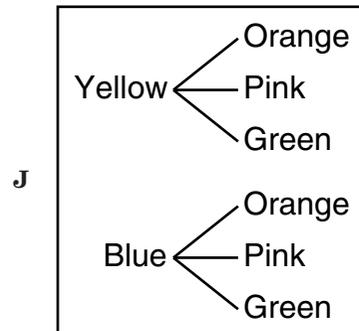
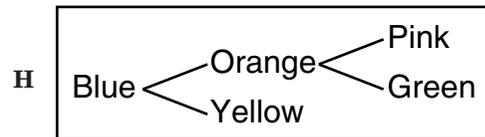
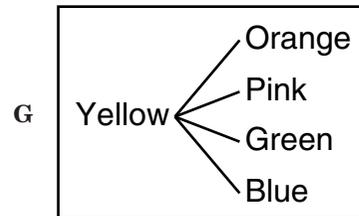
- A $\frac{1}{2}$
- B $\frac{2}{8}$
- C $\frac{2}{10}$
- D $\frac{1}{10}$

34 Each person attending a meeting will receive a notepad and a ruler. The table below shows the different colors of the notepads and the rulers.

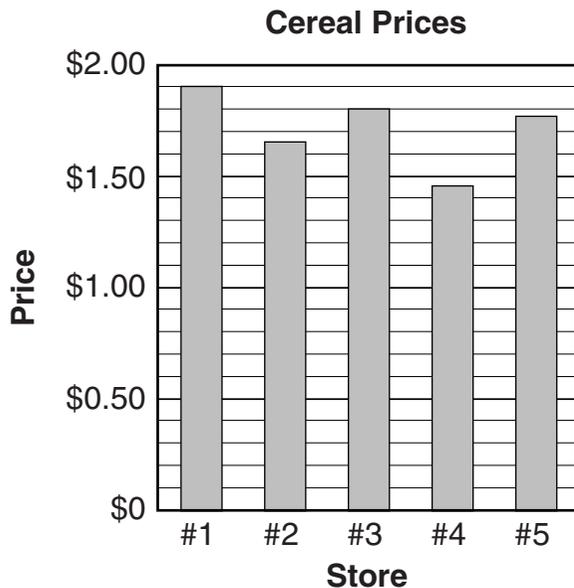
Meeting Supplies

Notepads	Ruler
Yellow	Orange
Blue	Pink
	Green

Which of the following tree diagrams shows all the different combinations of 1 color of notepad and 1 color of ruler?



- 35 For a class project, Anita compared the price of a medium-sized box of Superflakes cereal at five different stores. All the prices were recorded on the same day. The graph below shows the prices she recorded.



Which is *closest* to the price of the box of cereal at Store #2?

- A \$1.65
- B \$1.51
- C \$1.13
- D \$1.02

- 36 Megan ordered T-shirts for all the people who registered for next week's charity walk. The table below shows the number of each size T-shirt she ordered.

T-Shirts Ordered

Size	Number Ordered
Small	18
Medium	26
Large	26
X-Large	19
XX-Large	11

What was the mean (average) number of shirts ordered per size?

- F 15
- G 19
- H 20
- J 26

37 Carla's softball team is selling candy to earn money for uniforms. The list shows the number of boxes of candy each member of the team sold.

22 10 31 19
 38 27 44 12
 14 42 35 27

Which of the following stem-and-leaf plots shows this same information?

A

Stem	Leaf
1	2, 4, 9
2	2, 7, 7
3	1, 5, 8
4	2, 4

B

Stem	Leaf
1	0, 2, 4, 9
2	2, 7
3	1, 5, 8
4	2, 4, 4

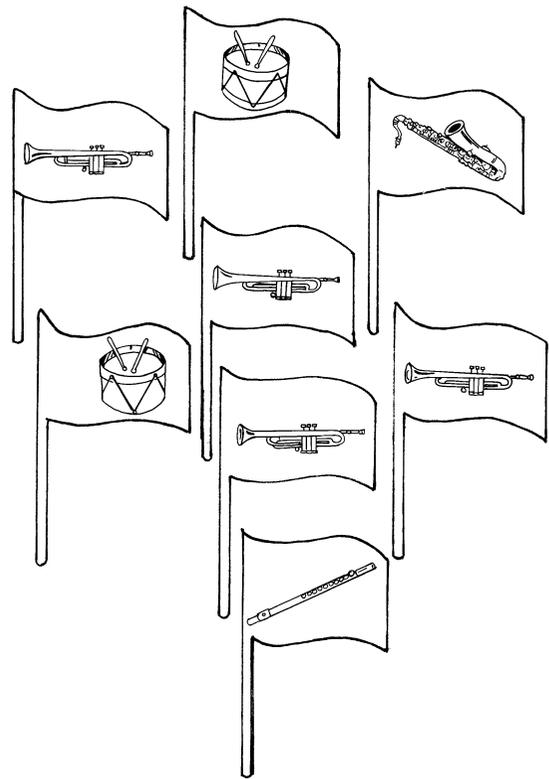
C

Stem	Leaf
1	0, 2, 4, 9
2	2, 7, 7
3	1, 5, 8
4	2, 4

D

Stem	Leaf
1	4
2	3
3	3
4	2

38 These are the flags that will be carried in front of the marching band.



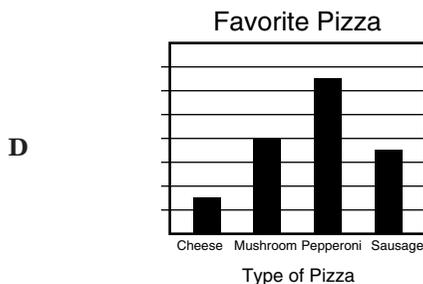
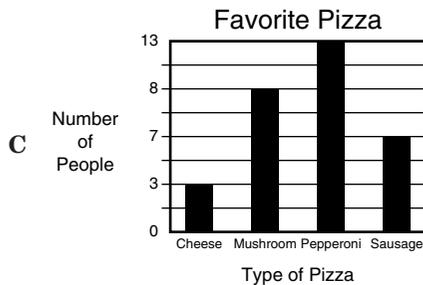
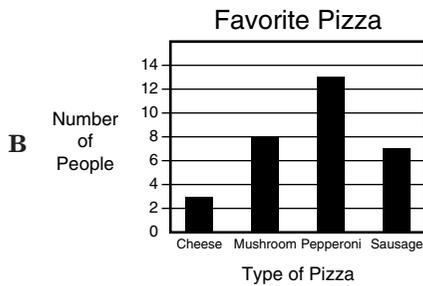
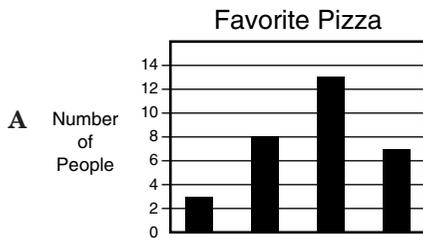
Which of the following questions about these flags could you use probability to solve?

- F How many more flags have trumpets on them than drums?
- G If Lionel picks a flag without looking, what kind of flag is he least likely to pick?
- H What kind of instrument is on exactly one-half of the flags?
- J If 5 people get to pick a flag before Amanda, how many will she have to choose from?

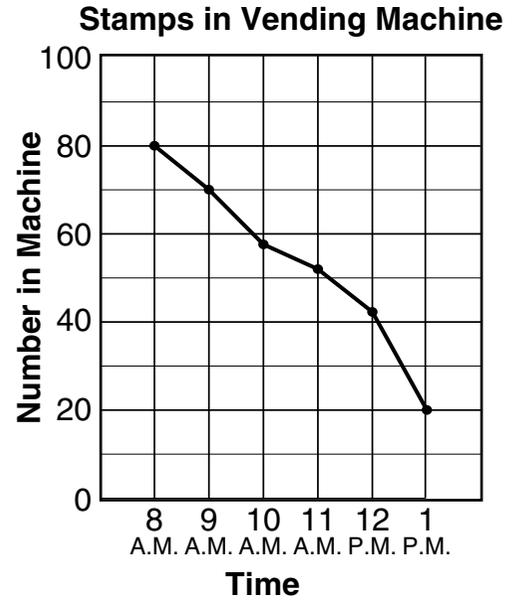
- 39 Shelby asked some friends to name their favorite kind of pizza. She made this tally chart to show their answers.

Favorite Pizza	
Cheese	
Mushroom	
Pepperoni	
Sausage	

Which bar graph displays this information correctly?



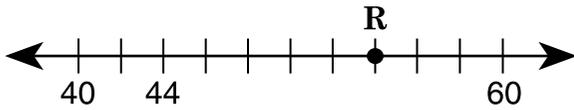
- 40 The graph below shows how the number of books of flower stamps in a vending machine changed over a period of hours.



Which is *closest* to the number of books of stamps in the machine at 11 A.M.?

- F 41
G 46
H 52
J 59

- 41 Which *best describes* the location of point R on the number line shown below?



- A 49
- B 50
- C 54
- D 58

- 42 The table shows the cost of tickets to a museum. The cost per ticket does not change.

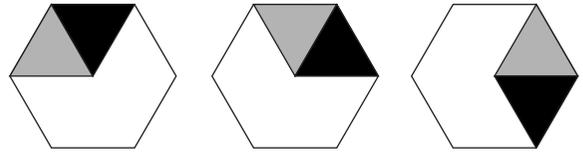
Museum Tickets

Number of Tickets	Total Cost
1	\$2.75
2	\$5.50
3	?
4	\$11.00
5	\$13.75

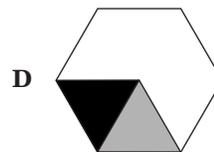
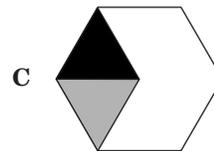
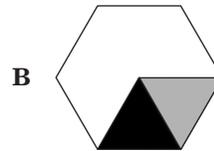
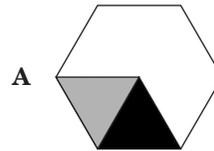
Based on the pattern in the table, what will be the total cost of 3 tickets?

- F \$7.25
- G \$7.75
- H \$8.25
- J \$8.50

- 43 Look at the pattern below.



If this pattern continues, what will be the next figure?



44 Jasper took all the books out of a box and arranged them on two shelves. He put the same number of books on each shelf. If B represents the number of books that were in the box, which of the following could be used to find the number of books Jasper put on each shelf?

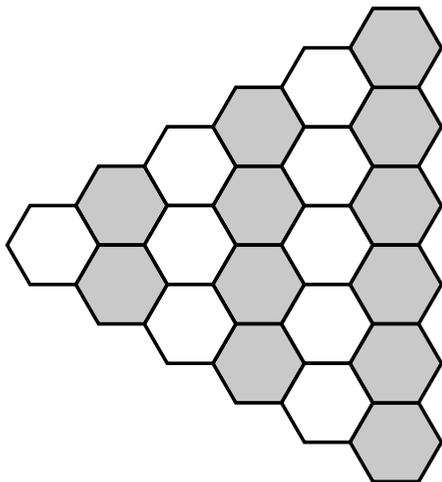
F $B + 2 = ?$

G $B \times 2 = ?$

H $B - 2 = ?$

J $B \div 2 = ?$

45 Andi is using white and gray tiles to make the pattern shown below.



If she continues the pattern in the same way, how many tiles will be in the next column of *gray* tiles?

- A 7
- B 8
- C 10
- D 12

46 1, 10, 100, 1,000, _____

If this pattern of numbers continues, what should be the next number in the pattern?

F 10,000

G 1,110

H 1,100

J 1,001

47 Look at the pattern of shapes shown below.



If the pattern continues, what will the next 2 shapes look like?



- 48 The table shows the cost of milkshakes at an ice cream store.

Milkshake Costs

Number of Milkshakes	Total Cost
1	\$2.50
2	\$5.00
3	\$7.50
4	\$10.00
5	\$12.50
6	?

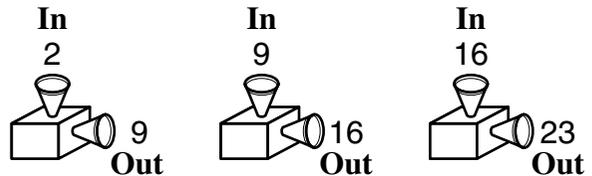
If the pattern in the table continues, what will be the total cost for 6 milkshakes?

- F \$15.00
- G \$14.50
- H \$13.50
- J \$13.00

- 49 Which of the following can be solved using the open sentence $B - 5 = ?$

- A Dana bought just enough buttons to put five on each shirt she made. If B is the number of kinds of buttons she bought, how many shirts did Dana make?
- B Lana bought five of each kind of bagel a bakery had in stock. If B is the number of kinds of bagels the bakery had, how many bagels did Lana buy?
- C Carter sold five fewer boxes of cookies than Brad. If B is the number of boxes Brad sold, how many boxes of cookies did Carter sell?
- D Harry found five new bugs for his collection today. If B is the number of bugs he had yesterday, how many does he have now?

- 50 Which describes a rule that the number machine could be using?



- F Multiply by 4; add 1
- G Divide by 4; add 1
- H Subtract 7
- J Add 7

Answer Key

Test Sequence	Correct Answer	Reporting Category	Reporting Category Description
1	C	007	Computation and Estimation
2	F	007	Computation and Estimation
3	B	007	Computation and Estimation
4	H	007	Computation and Estimation
5	B	007	Computation and Estimation
6	F	007	Computation and Estimation
7	A	007	Computation and Estimation
8	H	007	Computation and Estimation
9	A	007	Computation and Estimation
10	J	007	Computation and Estimation
11	C	007	Computation and Estimation
12	F	007	Computation and Estimation
13	B	006	Number and Number Sense
14	J	006	Number and Number Sense
15	A	006	Number and Number Sense
16	H	006	Number and Number Sense
17	D	006	Number and Number Sense
18	G	006	Number and Number Sense
19	A	006	Number and Number Sense
20	J	006	Number and Number Sense
21	A	008	Measurement and Geometry
22	J	008	Measurement and Geometry
23	C	008	Measurement and Geometry
24	G	008	Measurement and Geometry
25	B	008	Measurement and Geometry
26	G	008	Measurement and Geometry
27	A	008	Measurement and Geometry
28	G	008	Measurement and Geometry
29	B	008	Measurement and Geometry
30	F	008	Measurement and Geometry
31	C	008	Measurement and Geometry
32	G	008	Measurement and Geometry
33	C	009	Probability and Statistics
34	J	009	Probability and Statistics
35	A	009	Probability and Statistics
36	H	009	Probability and Statistics
37	C	009	Probability and Statistics
38	G	009	Probability and Statistics
39	B	009	Probability and Statistics
40	H	009	Probability and Statistics
41	C	010	Patterns, Functions, and Algebra
42	H	010	Patterns, Functions, and Algebra
43	B	010	Patterns, Functions, and Algebra
44	J	010	Patterns, Functions, and Algebra
45	B	010	Patterns, Functions, and Algebra
46	F	010	Patterns, Functions, and Algebra
47	D	010	Patterns, Functions, and Algebra
48	F	010	Patterns, Functions, and Algebra
49	C	010	Patterns, Functions, and Algebra
50	J	010	Patterns, Functions, and Algebra